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ABSTRACT

The study explored the problem of teacher resistance to change in educational methods and programs. Stressing the need for educators to change in order to keep abreast of educational developments, researchers adapted and administered an attitude scale, the Comprehensive Career Education (CCE) Staff Development Questionnaire, to 577 teachers in a large southern school district. The questionnaire measured teachers' attitudes to career education and also to change. Teachers fell into three classes: those enthusiastic about change, those indifferent to change, and those resistive to change. Teachers identified as not being change-oriented were asked to participate in a seminar focusing on changing their attitudes to career education. A random sample of 60 change-resistive teachers were assigned equally to three treatment conditions: an attitude change workshop, a career education curriculum unit, and a control group. Participants in the attitude change workshop were permitted to self-elect either a pro or con position and then to maintain it during the three day workshop. Conclusions, recommendations, and implications for teacher inservice eduation are presented and discussed. (SD)

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ATTITUDES TOWARDS CAREER EDUCATION IDENTIFICATION AND CHANGE

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ATTITUDES TOWARDS CAREER EDUCATION IDENTIFICATION AND CHANGE

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Within a society characterized by rapid social and technological change, the teaching process and for that matter, learning, is extremely complex. Information presented today may be outdated tomorrow. A teaching or learning environment appropriate to one period of cultural transition may be inappropriate in another. The teacher's role is subject to considerable shifts requiring skills varying according to the time, the place, and the individual with whom the teacher is working.

We are living in a transitional age where today's youth are involved with more advanced kinds of thinking, analysis, and valuing than any other known group in history. How will arithmetic be taught when each elementary student will have his or her own pocket electronic calculator? How will history be taught when students can dial a number and view historical films on television screens, or retrieve microfiche pages from any of a million books? Jung[1] of the Northwest Regional Educational Laboratory states that "educators will be living the answers to such questions in the coming years."

This is an age of change that requires new and rapid adjustment. Moffitt[2] writes that

> its impact on education is an ongoing challenge. It is the basic reason determining the need for continuous education for all people and particularly of all teachers. Without continuing study, teacher knowledge and teacher performance soon become obsolete.

Education is continually called upon to change. It is understandable that when knowledge is expanded, learning and teaching methods are discovered and new resources become available, considerable retraining of educators must occur thus demanding change in teacher education. Teacher in-service education is a major method of providing teachers the opportunity to increase efficiency, develop new skills, and provide for continual learning.

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[1]Charles Jung, "Instructional Systems for Professional Development," *Theory Into Practice.* Columbus: The Ohio State University, College of Education, 1972, pp. 276-277.

[2]John C. Moffitt, *In-service Education for Teachers.* Washington, D.C.: The Center for Applied Research in Education, Inc., 1963, pp. 6-7.

In-service education is a planned process for influencing teacher behavior with the intent of changing or modifying conditions and instructional practices to be used in our schools. Harris and Bessent[3] give four propositions providing a conceptual framework for education to plan for and initiate change. They are:

1) In-service education is a process for change

2) Changes through in-service education take place in an organizational context

3) In-service education is a process for planned change

4) In-service education is one of several organizational changes and takes place through personnel development

In-service education represents interventions directed toward deliberate, planned changes. Harris and Bessent[4] refer to planned change, using an agent of change—someone who examines the existing state in light of some future desired condition. The change agent then intervenes somehow to change events to reach a desired goal. The ultimate goal is to improve and make more effective the educational opportunities for children. The focus is on educational renewal procedures designed to facilitate individual and group growth of teachers within the public schools.

The characteristics of a successful program of staff development have been enumerated by Finnegan.[5] Successful program characteristics are:

1) Designed to meet genuine needs of the educational staff, pupils, and citizens of the community, as determined by group study and judgment;

2) Planned and administered cooperatively with objectives clearly established;

3) Designed to provide help of a practical, concrete nature;

4) Designed to be continuous and planned on a long-term basis;

5) Considered an integral part of the educational process;

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[3]Ben M. Harris and Wailand Bessent, *In-service Education, A Guide to Better Practice.* Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1969, p. 16.

[4]*Ibid.*, p. 19.

[5]Harry Finnegan, "Into Thy Hands . . . Staff Development," *Theory Into Practice.* Columbus: The Ohio State University, College of Education, 1972, p. 216.

6) Designed to be action centered;

7) Based on sound principles of learning, and;

8) Designed to provide a permissive atmosphere conducive to creativity.

In-service education today cannot be viewed as a frill or an add-on activity to take place at the beginning or any other single point in time of any school year. It must be considered an integral feature, woven into the ongoing instructional program and organizational fabric of the system. Fundamental to educational change, strategy is total school staff involvement. If education is to meet the demand of the time, it must plan for change by involving the entire school staff. Gorman[6] writes in the recommended guidelines for in-service development:

> When all of the educational personnel involved with Career Education are a part of the in-service education program, then, it will be more likely that the program will have a positive enduring effect in the total educational environment.

Any school district considering in-service training needs for all their staff members is likely to face some difficult issues. Rapid educational change, like that being called for in career education, calls for continual in-service education of existing staff. School budgets are inadequate in many districts and the cost of in-service education is increasing. As costs increase, there will be pressure to limit staff renewal to those staff members who can profit the most. This is critical because to exclude any teachers from participating in in-service may hinder the adoption process. Many educational changes are long lasting and need total staff involvement and support. This is especially true of career education presently serving as a change model that demands long-range planning time to develop, test, and evaluate.

There is another inherent problem in the development and implementation of career education. The emphasis on an engineering effort in curriculum development could pose a problem of teacher noninvolvement. As more tested programs and products are developed and installed, teachers may assume a passive resistive role in implementation.

Teacher resistance to change and general indifference to in-service education has been known for many years. Coon,[7] in a study of attitudes of teachers and administrators toward high school

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[6]Anna M. Gorman, et al., *Operation Resources for Teacher Educators and Other Educational Personnel Concerned with Teaching the Disadvantaged Learner.* Columbus: The Center for Vocational and Technical Education, The Ohio State University, March 1972, pp. 27-29.

[7]H. Coon, *A Study of the Attitudes of Teachers and Administrators Toward High School Curriculum Organizations*, unpublished Ph.D. dissertation, 1951, The Ohio State University.

reorganization, reached the conclusion that "teachers are highly resistant to significant curriculum change, more so than either administrators, students, or parents."

As a result of a study involving 247 selected schools of the North Central Association, Weber[8] identifies the unprofessional attitudes of teachers as creating the greatest barrier to change. These attitudes stem from "a generalized feeling of opposition to change; a general disposition of indifferent inertia and complacency; the holding of tenure rights and the feeling that administrators assume the responsibility for educational changes and curriculum improvements." This was confirmed by Berry and Murfin[9] who state that

> the teaching personnel toward whom in-service education is directed often create the greatest barrier to success of these programs. Indifference, negativism, resistance, lack of interest, apathy, complacency, and inertia may be identified as factors which sometimes limit individuals or whole faculties in efforts at growth through in-service techniques.

Sarason,[10] in observing the problem of change in a school, recognizes that "there will be groups that will feel obligated to obstruct, divert, or defeat the proposed change." In establishing priorities for theory of change, he states that

> recognizing and dealing with this source of opposition is not a matter of choice, preference, or personal aesthetics. The chance of achieving intended outcomes becomes near zero when the sources of opposition are not faced, if only because it is tantamount to denial or avoidance of the reality of existing social forces and relationships in the particular setting.

A problem of greater magnitude is to design in-service education programs to deal effectively with the resistive personality. There has been little research dealing with the magnitude of change and personality types. Less research has been conducted on the personality that is resistive to influence. Goldstein and associates[11] write that "surprisingly little interest has been generated in studying the characteristics of those who are resistive to influence." What adds to the problem is that resistance to influence is held in a high regard by many people in society. Pepinsky[12]

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[8]W. E. Weber, "Obstacles to be Overcome in a Program of Teacher Education In-service," *Educational Administration and Supervision*, Vol. 28, Nov. 1962, pp. 609-614.

[9]J. R. Berry and M. Murfin, "Meeting Barriers to In-service Education," *Educational Leadership*, Vol. 17, No. 6, March 1960, p. 354.

[10]Seymour B. Sarason, *The Culture of the School and the Problem of Change*. Boston: Allyn and Bacon, Inc., 1971, p. 59.

[11]A. P. Goldstein, K. Heller, and L. B. Sechrest, *Psychotherapy and the Psychology of Behavior Change*. New York: John Wiley and Sons, Inc., 1966, p. 153.

[12]P. N. Pepinsky, "Social Exceptions that Prove the Rule," in I. A. Berg and B. M. Bass (eds.), *Conformity and Deviation*. New York: Harper, 1966, pp. 380-411.

writes that resistance to influence is considered a positively valued trait in our culture at times indicating productive nonconformity. In contrast to the little research done to determine the characteristics of the resistive personality a great deal of research has been done on the conforming personality. In reviewing literature on the characteristics of the conforming personality, Blake and Mouton[13] offer the following conclusions:

> Results show that those who are more susceptible to conformity pressures are more likely to be submissive, low in self-confidence, show less nervous tension, score higher on authority scales, be less intelligent, less original, and to score on the simplicity end of the dimension of the complexity-simplicity scale.

An underlying purpose of this discussion is to point out the importance of gaining more knowledge and understanding of persons who are resistive to influence. The inability of educational decision-makers to discriminate between the conforming personalities and the early adopters emphasizes the importance of developing teacher in-service programs that are specifically designed for teachers who are resistive to influence.

Approaches Considered

Given that teachers' indifference and resistance must be considered when designing in-service education programs, a major question can be asked. How can a staff development effort be operationalized to maximize the assimilation of career education in a particular school district?

There are many approaches that could be developed to address the above mentioned question. For example, it could be assumed that variations among district staff members in terms of their acceptance of and commitment to the philosophical and operational tenets are negligible and will not affect staff development outcomes. Neglecting these variations could be a mistake in terms of long-range planning. The danger is that program innovators and educational decision-makers who are eager for positive initial support and exclude the resistive personality that may represent the long-term positive effect needed for total program adoption.

A second approach could be to make a comprehensive attempt at creating a positive affective change in all staff members in a school district. The efficiency of this strategy also should be questioned. In most instances, efforts to induce large group affective changes of the type desired tend to be time-consuming, relatively ineffectual, and have low cost-effectiveness. Also, such efforts may have an effect opposite the one desired, especially when directed toward those staff members who already exhibit positive affective behaviors.

A final approach simply would be to involve only those staff members who are known to exhibit positive feelings toward the innovation, and then have them influence other members

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[13]R. R. Blake and J. S. Mouton, "Conformity, Resistance, and Conversion," in I. A. Berg and B. M. Bass (eds.), *Conformity and Deviation.* New York: Harper, 1961, pp. 19-20.

through normal interaction patterns. The third strategy also could be questioned on the grounds of its cost-effectiveness although such an approach probably could be developed.

In analyzing all of the above approaches, The Center for Vocational and Technical Education selected one for study which will be described in this paper. Our strategy was selected because it was viewed (a) as being more cost-effective than the three strategies described above, (b) as being more directive in its focus, and (c) as being more adaptable in actual school settings.

The specific approach proposed can be described as follows:

1. First, every staff member in a target district will be administered three short scales that will be used to differentiate among them in terms of their orientation toward innovation or change, their attitudes towards career education and thirdly, their commitment to same.

2. Next, those staff members identified as not being change-oriented will be asked to participate in a special seminar that focuses upon changing their attitudes towards change and more specifically, towards career education, per se, the Comprehensive Career Education Attitude Change Module.

Identifying The Resistive Staff

In investigating the problem of identifying resistive staff, a concentrated effort was made to develop a valid and reliable instrument to gain a better understanding of the characteristics of the prospective adopter. To this end an attitude scale was designed to measure various levels of staff attitudes towards career education. The instrument utilized three different subscales for the purpose of gaining greater potential in interpretive power in measuring attitudes than a single summative score. The final instrument: The Comprehensive Career Education (CCE) Staff Development Questionnaire was designed to generate a multidimensional attitude profile to enable local educational personnel a broader picture of the attitudes of a Local Education Agency in order to make more realistic decisions regarding their career education efforts.

Description Of The Subscales

Krathwohl[14] states that the lowest level of valuing is typically called a belief, i.e., accepting a value. At the highest level, the terms "commitment" or "conviction" are more appropriate than belief. Subscale I, The "Acceptance" scale was designed to measure educational staff acceptance

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[14]Krathwohl, B. S. Bloom, and B. B. Mason, "Taxonomy of Educational Objective," *Handbook II: Affective Domain*, New York: David McKay Company, Inc., 1956, pp. 139-141.

of principles and concepts of career education. Krathwohl[15] characterizes an attitude in the acceptance level as an abstract concept of worth that is internalized deeply enough to be a consistent controlling force on behavior, and that the person is perceived by others as holding the belief or value.

Subscale II has been labelled the "Commitment Scale" which is more action oriented and deals more directly with staff involvement in career education. Krathwohl[16] describes belief at this level as involving a high degree of certainty. The ideas of "conviction" and "certainty beyond a shadow of a doubt" help to convey further the level of behavior intended.

The third subscale was designed to differentiate between innovation and early adopters as contrasted with "laggers" who are slow to change. It was developed utilizing Russell's[17] measurement of the orientation of vocational teachers. The purpose of including this subscale was to measure change orientation of educators without reference to career education or vocational education. Test items having reference to the work ethic philosophy were deleted from this subscale.

In our initial testing of the scales, an attendance area of a large southern school district consisting of 577 teachers were administered the questionnaire described above. Evidence indicated that there are essentially three broad classifications of educators. The first group of educators were identified as being enthusiastic toward change and actively sought new teaching methods and techniques. A second group in the study were classified as indifferent to change and were not supportive of an adopting program. The third group, scoring lowest on a multidimensional attitude profile, represented staff who were resistive to change and may actively oppose any interruption within the school setting.

One of the interesting findings during this study was that within each subgroup there was a wide variation of attitudes toward career education. For example, one-third of the group that scored high in change orientation scored in the lower quartile on the commitment subscale. Research indicates that there are many staff members who view vocational education unfavorably or have biases toward education for employment. The profile generated supports the idea that staff may be highly favored toward change but be in opposition toward career education.

Another significant finding was the lack of any clear pattern of response in the acceptance subscale. This scale seems to be a function of the characteristics of the situation in which a person found himself. The score is dependent upon the demand characteristics of the situation and

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[15]Krathwohl, *ibid.*, p. 149.

[16]Krathwohl, *ibid.*, p. 150.

[17]Earl B. Russell, "The Measurement of the Change Orientation of Vocational Teachers." The Center for Vocational and Technical Education, The Ohio State University, Columbus, Ohio. Research and Development Series No. 77, December 1972.

does not reflect a deep conviction regarding career education. This subscale is important as an oblique technique in order to get a more accurate reading on the commitment scale. It is recommended that staff members identified as not being change-oriented be asked to participate in a special seminar that focuses upon changing their attitudes toward career education, i.e., The CCE Attitude Change Module. The specific in-service package that the low change-oriented staff members would be asked to complete before proceeding with the remainder of the staff development sequences has the following purposes:

1. To involve participants in learning activities that will increase the likelihood of continued participation in the in-service program.

2. To persuade participants to critically assess career education materials in order to integrate this information with their areas of expertise.

3. To engage participants in discrepant behavior inconsistent with their private feelings to optimize an attitude change favoring career education.

The selected strategy was developed from the theoretical base of Festinger's cognitive dissonance theory. The strategy utilizes empirical research findings that have demonstrated effective behavioral change. Then, by careful design, this type of laboratory can be extrapolated into a practical teacher education seminar to affect a predicted change in teacher attitude. The field tested strategy reported in this study demonstrates that educators and researchers can work together in bridging the gap between behavioral science and education in the "real life" setting.

Cognitive Dissonance Theory

The theory of cognitive dissonance incorporates cognitive elements and their relationships. These are items of confirmation or cognition about one's self , one's behavior, or one's environment. A person likes to think that his attitudes, beliefs, and related behavior form a consistent pattern. Incongruity between a person's private beliefs and behavior results in a sense of imbalance—what Festinger refers to as dissonance. There are several theories on the need to correct dissonance called cognitive consistency theories. They deal with perceived inconsistencies and assert that inconsistencies generate tension. They postulate that a person with dissonance will behave so that he maximizes the internal consistency of his cognitive system.

Festinger[18] was the first to publish explicit formulation of dissonance theory in this 1957 volume, *A Theory of Cognitive Dissonance.* As Festinger[19] and others have shown, the weighing of

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[18]Leon Festinger, *A Theory of Cognitive Dissonance.* Stanford, Calif.: Stanford University Press, 1957, p. 37.

[19]Leon Festinger, et al., *Conflict Decision and Dissonance.* Stanford, Calif.: Stanford University Press, 1964, pp. 158-59.

alternatives is more realistic prior to the decision; after the decision there is great pressure to bring belief and action into balance. Dissonance reduction is a key principle in his theory. Dissonance is an unpleasant state of affairs that creates tensions that tend to motivate a person to reduce this inconsistency. Cohen[20] lists three ways in which a person's induced discrepancies between cognitions and behavior can be reduced.

1. He can, in general, change any or all of the cognitions so they will lead more strongly to the expression made.

2. He can increase the felt importance of the intrinsic rewards or punishments that led to the discrepant behavior.

3. He can reduce or completely eliminate his dissonance by changing his private opinion so that it is more consistent with the expression made.

The central hypothesis of the theory holds that the presence of dissonance gives rise to pressure to reduce that dissonance. The strength of this pressure is a direct function of the magnitude of the existing dissonance. It becomes essential that dissonance arousal become a major manipulative technique in order to predict dissonance reduction. It is possible to arouse cognitive dissonance and increase commitment by employing role playing. The procedures require that the negatively attracted person act as if he was positively attracted to the situation.

Operational Plan For Module Design

Many problems had to be overcome in designing an attitude change module based on the empirical base of cognitive dissonance theory. One of the most difficult problems is addressed by Fishbein[21] regarding the conditions of subject choice. He states:

> The experimental fostering of the individual's belief that he has relative freedom of choice about whether or not he complies with the discrepant request is a major problem. If the person feels that he has been coerced, little dissonance and consequent attitude change will result. On the other hand, if subjects are actually allowed to agree or disagree freely with the request to comply, few may comply. After all, why should anyone agree to support a position with which he disagrees or engage in behavior which is unpleasant to him?

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[20]Arthur R. Cohen, "Attitudinal Consequences of Induced Discrepancies Between Cognitions and Behavior" in Martin Fishbein, *Readings in Attitude Theory and Measurement.* New York: John Wiley and Sons, Inc., 1967, p. 333.

[21]E. G. Festinger and Carlsmith, *op. cit.*, and Cohen "Forced Compliance through Positive Inducement, Perceived Choice and Attitude Change," in Readings in *Attitude Theory and Measurement.* New York: John Wiley and Sons, Inc., 1967, p. 339.

It must be emphasized that in order to apply cognitive dissonance theory in a practical program, one cannot just construct a traditional teacher education workshop. One important point in designing a program is that incentive, inducement, coercion, and authoritative techniques may not be used as manipulating strategies. They are likely to reduce the likelihood of an attitude change. Choice is an essential condition which precludes the complete autonomy of the subject to decide whether or not to participate and remain in the program.

Individual choice has been carefully considered in the planning strategy for involving resistive teachers in discrepant behavior. Choice points are structured at critical times to minimize coercion and experimental manipulation. Teachers have the opportunity to exercise free choice in whether or not to identify themselves on the pretest, which is an attitudinal questionnaire identified as a career education instrument. It is a basis for selecting the experimental sample.

In our study, each participant was notified by personal letter mailed from The Center for Vocational and Technical Education. The teacher again had to exercise choice regarding participation in a career education workshop. Another critical choice point designed into the treatment permitted the participant to choose his/her posture regarding the career education program. Each teacher chose to defend or oppose the career education program. At no time during the experiment were the participants coerced to continue the program.

A second critical feature of our attitude in-service education program was to employ dissonance-arousing manipulations to encourage involvement in learning activities inconsistent with private feelings. To be able to engage participants to support a position which is disagreeable required a great deal of experimental ingenuity. There had to be some justification for personal involvement in an unpleasant task but not to the point where the participant could disengage himself from the discrepant behavior.

The importance of role playing to induce attitudinal change has been verified by research. Role playing as an engaging technique in discrepant behavior is emphasized by Kelly[22] who states that role playing offers a person the opportunity of "trying on" new behaviors under relatively safe conditions. It is as if one has a protective mask to "explore his world without wholly and irrevocably committing oneself." As a subject continues to act discrepantly from his beliefs, he sees little prospect of publicly canceling out the discrepant behavior.

High commitment conditions existed when the participants were asked to record a statement on videotape. As the person viewed himself along with other group members, it became more difficult to neutralize his discrepant behavior. This is especially true because free choice was used in structuring the experimental situation.

One of the significant features in our study was to isolate the elements and maximize the dissonance between the two elements or cluster of elements. It was essential that we make a conscious

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[22]G. A. Kelly, *The Psychology of Personal Constructs.* New York: Norton, 1955, p. 373.

effort to "block off" all methods of dissonance reduction except one, i.e., changing one's private position to coincide more nearly with the position expressed. To rule out the possibility that the experimental setting is creating dissonance, an initial encounter group experience was planned. Each participant was made to feel a part of the group through interaction, creating a safe environment in which to experiment.

Teacher workshops often appeal for acceptance of specific ideas or program information without presenting rival ideas. Dissonance can be aroused through defensive reactions on the part of the participants since they are not given an opportunity to compare and view counter arguments. Hovland, et al.,[23] demonstrated that a two-sided program is more effective in changing the opinion of those initially opposed to the program. An experiment conducted by Tumsdaine and Janis[24] clearly indicates that the subjects who received the two-sided communications are able to maintain the adopted attitude.

Rival ideas and comparisons are a major feature of our teacher attitude program. The importance of two-sided communications is emphasized by the numerous instructional "hand-out" materials. Reading kits were prepared representing extreme pro and con positions on career education. Each participant chose a position and was given a packet with reading material to support him. In order to reduce suspicion regarding these positions, the program objectives specify learning of classroom teaching techniques (role playing and videotape recordings). The intent was to create the illusion that the content (career education material) is a secondary feature of the program. Although a subject chooses to take a position inconsistent with his private attitudes, dissonance arousal does not occur until an overt expression is made.

Summary

The Problem And Methodology

In-service education is a planned process for influencing teacher behavior with the intent of changing conditions and instructional practices in the classroom. As educational change occurs, attempts must be made to involve all teachers in an organized program of in-service education. In planning in-service activities, it is important to recognize that many teachers often defend the traditional content and approaches in education and resist change. Unless effective means are developed to encourage the resistive teacher to attend in-service education programs for the purpose of change, there will be little chance of achieving intended outcomes. The problem is that staff development specialists and program developers have not developed effective in-service strategies to

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[23]C. I. Hovland; A. A. Tumsdaine; and F. D. Sheffield, *Experiments on Mass Communications.* Princeton: Princeton University Press, 1949.

[24]A. A. Tumsdaine and I. L. Janis, "Resistance to 'Counter Propaganda' Produced by One-Sided and Two-Sided 'Propaganda Presentations'," *Public Opinion Quarterly*, 1953, Vol. 17, pp. 311-318.

influence the behavior change of resistive teachers. Therefore, the purpose of our attitude change study was to develop an in-service attitude change module and to field test it in order to compare short-term effects of this method of intervention on the attitude of dissident teachers.

We compared the attitude change experienced by resistive teachers as a result of being selected to field test a career education curriculum unit developed by The Center and undergo the regular planned in-service education. We also studied the effects of using a planned intervention module in the form of behavior modification in changing the attitudes of resistive teachers compared with a group of teachers not involved in any career education in-service education program. Experimental subjects were sixty teachers randomly selected from the population of teachers who scored in the lowest quartile in the acceptance subscale of the Comprehensive Career Education Staff Development Questionnaire.

The sample utilized in our study was assigned to three treatment conditions. Twenty teachers were assigned to the attitude change workshop, twenty teachers were assigned to teach a career education curriculum unit and twenty were assigned to a control group. The participants in the attitude change workshop were permitted to self-select either a pro or con position during the first workshop setting. Upon making a selection, each participant was required to maintain the chosen posture for the duration of the three day workshop.

Conclusions

Taking into consideration the limitations that have been examined earlier, this section presents conclusions that were drawn from our experimental findings.

1. Resistive teachers can be influenced to change their attitudes in a specific direction as a result of planned intervention developed on the theoretical framework of Festinger's theory of cognitive dissonance.

2. A cognitive in-service program designed to provide educational staff information about career education and instructional skill and field testing instructional units is not effective in positively modifying the attitudes of resistive teachers.

3. Active participation via role playing does increase attitude change. Evidence substantiates that both the pro and con role playing groups experienced attitude change consistent with their role. However, in order to directionalize a positive change in resistive teachers, discrepant role playing must be induced.

4. Teachers who self-select a position favorable to career education and maintain that posture through a series of role playing exercises experience a short-term attitude change.

5. The subscales acceptance and commitment changed as a result of treatment whereas the change orientation variable remained unchanged throughout the duration of the experiment.

The change orientation scale is a relatively stable attitude measure as compared to the subscales acceptance and commitment.

Recommendations

As previously noted, during all periods of change and especially the change we're now experiencing in career education, staff will view it (the change) in differing ways. It is suggested that staff with differing attitudes toward change do not receive the same kind of in-service. Through our experience during the past two years, it appears both wise and cost-effective to initially assess where staff are in relationship to accepting or rejecting career education and deal with them on that level.

We have found that dissonance can be addressed effectively and that it should be treated before such staff deal with the mainstream of program activities. This approach is in line with the basic principles of in-service which states that any staff training program should be designed to meet the needs of the specific audience.

Implications Of The Study For Teacher In-service Education

Teachers and their activities in the classroom are the concern of the staff development effort within a school district. The ultimate goal of staff development is to improve and make more effective the educational opportunities provided for children. To accomplish this goal, educational renewal procedures are being designed to facilitate the professional development of teachers and other staff members.

The public school teacher is characteristically goal oriented and wants to be involved in learning situations that are important to him. If an in-service education program for teachers is to be successful in effecting behavioral change, the program must be designed to meet the needs, interests, and desires of its clientele.

Although desirable, it is not always possible for teachers to plan and design program strategies. Teacher training programs often stipulate learning outcomes that are required for program adoption. This emphasis on an engineering effort in curriculum development and program adoption may create teacher noninvolvement. District planning, accountability, and specified program outcomes will tend to reduce the autonomy of the public school teacher. As more tested products are developed and installed, many teachers are likely to assume a passive, resistive role in the implementation process.

Teacher indifference and resistance to change must be considered when designing in-service education programs. One of the important implications of this study is to recognize as natural, a teacher's resistance to influence and accept it as a factor that must be considered when planning teacher in-service programs.

A desired outcome of this study is to point out the importance of developing in-service programs that are specifically designed for educational staff members resistive to change. Surprisingly little research has been generated to study the characteristics of those who are resistive to influence. Consequently, the resistive teacher is often viewed in a negative perspective of being poor in the performance of this role. We view the resistive personality as being inner directed with a firm philosophy that provides purpose and direction to life. Resistance to influence is characterized by individuals who are not actively seeking change, and therefore, are likely to be better adjusted, and have reached a more satisfying state of personal affairs. We also believe that special effort should be made to involve persons resistive to influence in the adoption process because "once sold" on the merits of a program, they will provide greater credibility and have a more positive enduring effect in the total educational environment.

As professionals responsible for the ongoing competency renewal of our nation's educational practitioners, the problem of attitudes should be a critical one. The concept of career education has swept the country during the past two years and has had long-lasting effects. During this period and in the future, local districts need professional advice on how to prepare all sub-sets of educators for their new role. During all new change periods, career education not exempted, there are those who for good and poor reasons stand up and oppose the new change being touted. Teacher educators must be ready to extend a hand to their surrounding districts in an attempt to (1) study the dissonance, (2) identify the individuals, (3) prepare special in-service programs, and (4) study the change and effect of the in-service.

With 40 percent of our nation's schools still small in size and rural in location, and 24 percent in suburban areas and 34 percent in cities, the diverse needs are evident. Only few of our schools can afford to have on staff a team of professionally trained researchers and in-service specialists. It is for that reason we have universities and colleges staffed sufficiently to meet the present needs of their state's schools.

We challenge all professional teacher educators to reach out, assess the problems your local districts are having in preparing for implementing career education. Without your help, career education may falter which, in the end, means a more relevant form of education will be lost because we weren't ready to take the challenge seriously.

Society is changing because education has and is changing. Let us all play our critical roles so that history will record many new advances for our country in the 70's and 80's. Such advances will be one measure of our accountability.